AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A bistable resistance value acquisition device characterized by comprising at least:

a first metal oxide layer which is made of a metal oxide containing at least two metals, on a substrate, and has a predetermined thickness;

a first electrode which is on one surface of said first metal oxide layer;

a second electrode which is on another surface of said first metal oxide layer; and

an insulating layer which is in contact with at least one of the one surface and ~~the other~~ said another surface of the first metal oxide layer, wherein the insulating layer is between the first metal oxide layer and one of the first and second ~~electrodes~~ electrodes;

a second metal oxide layer which is made of the metal oxide, is formed on the substrate, and has a predetermined thickness; and

a fourth electrode which is provided on said second metal oxide layer,

wherein said first electrode, said first metal oxide layer, said second metal oxide layer, and said fourth electrode are connected in series in an order named.

2. (Currently Amended) A bistable resistance value acquisition device according to claim 1, characterized by further comprising a third electrode which is formed on said ~~other~~ another surface of said first metal oxide layer while being spaced apart from said second electrode.

3. (Previously Presented) A bistable resistance value acquisition device according to claim 2, characterized in that said first electrode is a gate electrode, said second electrode is a source electrode, and said third electrode is a drain electrode.

4. (Cancelled)

5. (Cancelled)

6. (Currently Amended) A bistable resistance value acquisition device according to claim 1 ~~claim 4~~, characterized by further comprising:

an insulating layer which is formed in contact with at least one of one surface and another surface of said second metal oxide layer; and

a second insulating layer formed between said second metal oxide layer and at least one of said first and fourth electrodes.

7. (Cancelled)

8. (Cancelled)

9. (Original) A bistable resistance value acquisition device according to claim 1, characterized in that a resistance value of the metal oxide changes depending on an electrical signal supplied between said first electrode and said second electrode.

10. (Original) A bistable resistance value acquisition device according to claim 9, characterized in that

the metal oxide changes to

a first state having a first resistance value upon application of a voltage having not less than a first voltage value and

a second state having a second resistance value different from the first resistance value upon application of a voltage having not more than a second voltage value with a polarity different from the first voltage value.

11. (Previously Presented) A bistable resistance value acquisition device according to claim 9, characterized in that

the metal oxide changes to

a first state having a first resistance value upon application of a voltage more than a first voltage value and

a second state having a second resistance value larger than the first resistance value upon application of a voltage more than a second voltage value in a range not more than the first voltage value.

12. (Original) A bistable resistance value acquisition device according to claim 1, characterized in that

the metal oxide comprises at least a base layer made of at least a first metal and oxygen, and

a plurality of fine particles made of the first metal, a second metal, and oxygen and dispersed in said base layer.

13. (Original) A bistable resistance value acquisition device according to claim 12, characterized in that

said base layer is made of the first metal, the second metal, and oxygen in which a content of the second metal is smaller in comparison with a stoichiometric composition.

14. (Original) A bistable resistance value acquisition device according to claim 12, characterized in that

said base layer contains the first metal, the second metal, and a column crystal of oxygen.

15. (Original) A bistable resistance value acquisition device according to claim 12, characterized in that

the metal oxide comprises

a metal oxide monolayer in at least one of a column-crystal state and an amorphous state, which is arranged in contact with said base layer and made of at least the first metal and oxygen.

16. (Original) A bistable resistance value acquisition device according to claim 15, characterized in that

in said metal oxide monolayer, a content of the second metal is smaller in comparison with a stoichiometric composition of the first metal, the second metal, and oxygen.

17. (Original) A bistable resistance value acquisition device according to claim 15, characterized in that

said metal oxide monolayer does not contain the fine particles.

18. (Original) A bistable resistance value acquisition device according to claim 12, characterized in that

the first metal is titanium, the second metal is bismuth, and said base layer is in amorphous state and is formed from a layer containing titanium in an excessive amount relative to a stoichiometric composition.

19. (Original) A bistable resistance value acquisition device according to claim 18, characterized in that

said first electrode is made of at least one of ruthenium and platinum and

has at least one of a single-layer structure made of a single material and a layered structure made of a plurality of materials.

20. (Original) A bistable resistance value acquisition device according to claim 1, characterized in that the substrate is made of a conductive material.

21. (Original) A bistable resistance value acquisition device according to claim 20, characterized in that said first electrode is identical to the substrate.

22. (Original) A bistable resistance value acquisition device according to claim 1, characterized in that the metal oxide is a ferroelectric.

Claims 23-32 (Cancelled)

33. (New) A bistable resistance value acquisition device characterized by comprising at least:

a first metal oxide layer which is made of a metal oxide containing at least two metals, on a substrate, and has a predetermined thickness;

a first electrode which is on one surface of said first metal oxide layer;

a second electrode which is on another surface of said first metal oxide layer; and

an insulating layer which is in contact with at least one of the one surface and said another surface of the first metal oxide layer, wherein the insulating layer is between the first metal oxide layer and one of the first and second electrodes;

an amorphous layer in an amorphous state which is formed on the substrate;

a plurality of elements each of which includes said first electrode made of a conductive material in a crystalline state and formed on said amorphous layer, said first metal oxide layer formed on said first electrode, and said second electrode formed on said first metal oxide layer; and

an isolation layer which is made of the metal oxide and formed on said amorphous layer between said elements,

wherein said plurality of elements are isolated by said isolation layer.

34. (New) A bistable resistance value acquisition device according to claim 33, characterized in that said first metal oxide layer and said isolation layer are formed integrally.

35. (New) A bistable resistance value acquisition device according to claim 33, characterized by further comprising a third electrode which is formed on said another surface of said first metal oxide layer while being spaced apart from said second electrode.

36. (New) A bistable resistance value acquisition device according to claim 35, characterized in that said first electrode is a gate electrode, said second electrode is a source electrode, and said third electrode is a drain electrode.

37. (New) A bistable resistance value acquisition device according to claim 33, characterized in that a resistance value of the metal oxide changes depending on an electrical signal supplied between said first electrode and said second electrode.

38. (New) A bistable resistance value acquisition device according to claim 37, characterized in that

the metal oxide changes to

a first state having a first resistance value upon application of a voltage having not less than a first voltage value and

a second state having a second resistance value different from the first resistance value upon application of a voltage having not more than a second voltage value with a polarity different from the first voltage value.

39. (New) A bistable resistance value acquisition device according to claim 37, characterized in that

the metal oxide changes to

a first state having a first resistance value upon application of a voltage more than a first voltage value and

a second state having a second resistance value larger than the first resistance value upon application of a voltage more than a second voltage value in a range not more than the first voltage value.

40. (New) A bistable resistance value acquisition device according to claim 33, characterized in that

the metal oxide comprises at least a base layer made of at least a first metal and oxygen, and

a plurality of fine particles made of the first metal, a second metal, and oxygen and dispersed in said base layer.

41. (New) A bistable resistance value acquisition device according to claim 40, characterized in that

said base layer is made of the first metal, the second metal, and oxygen in which a content of the second metal is smaller in comparison with a stoichiometric composition.

42. (New) A bistable resistance value acquisition device according to claim 40, characterized in that

said base layer contains the first metal, the second metal, and a column crystal of oxygen.

43. (New) A bistable resistance value acquisition device according to claim 40, characterized in that

the metal oxide comprises

a metal oxide monolayer in at least one of a column-crystal state and an amorphous state, which is arranged in contact with said base layer and made of at least the first metal and oxygen.

44. (New) A bistable resistance value acquisition device according to claim 43, characterized in that

in said metal oxide monolayer, a content of the second metal is smaller in comparison with a stoichiometric composition of the first metal, the second metal, and oxygen.

45. (New) A bistable resistance value acquisition device according to claim 43, characterized in that

said metal oxide monolayer does not contain the fine particles.

46. (New) A bistable resistance value acquisition device according to claim 40, characterized in that

the first metal is titanium, the second metal is bismuth, and said base layer is in amorphous state and is formed from a layer containing titanium in an excessive amount relative to a stoichiometric composition.

47. (New) A bistable resistance value acquisition device according to claim 46, characterized in that

said first electrode is made of at least one of ruthenium and platinum and

has at least one of a single-layer structure made of a single material and a layered structure made of a plurality of materials.

48. (New) A bistable resistance value acquisition device according to claim 33, characterized in that the substrate is made of a conductive material.

49. (New) A bistable resistance value acquisition device according to claim 48, characterized in that said first electrode is identical to the substrate.

50. (New) A bistable resistance value acquisition device according to claim 33, characterized in that the metal oxide is a ferroelectric.